

HYDRAULIC SHOCK ABSORBER

ABSTRACT OF THE DISCLOSURE

A hydraulic shock absorber includes a cylindrical housing within which a piston assembly is slidably received. The piston assembly includes a piston element connected to
5 a piston rod and adapted to divide the interior of the housing into compression and rebound chambers. The piston element has compression and rebound passages to provide fluid communication between the compression and rebound chambers. A valve assembly includes a first valve disc
10 positioned on the lower side of the piston element, and a second valve disc retained on the first valve disc. The second valve disc includes apertures arranged in a circumferentially spaced relationship and selectively opened and closed by the first valve disc. A third valve
15 disc is retained on the second valve disc and has notches arranged in a circumferentially spaced relationship. The notches cooperate with the apertures to collectively form ports. The ports are communicated with the compression chamber. A fourth valve disc cooperates with the second
20 valve disc to sandwich the third valve disc so that restrictive orifices are defined in the outer end of the notches. Each of the ports has a cross sectional area greater than that of the restrictive orifices regardless of the relative angular position between the second and third
25 valve discs.